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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/974,679	10/11/2001	Kazuo Tsubouchi	054825-5001	7496
9629	7590	06/05/2006		
MORGAN LEWIS & BOCKIUS LLP 1111 PENNSYLVANIA AVENUE NW WASHINGTON, DC 20004			EXAMINER NGUYEN, PHUONGCHAU BA	
			ART UNIT	PAPER NUMBER
			2616	

DATE MAILED: 06/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/974,679	<b>Applicant(s)</b> TSUBOUCHI ET AL.	
	<b>Examiner</b> Phuongchau Ba Nguyen	<b>Art Unit</b> 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 22 March 2006.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 2 and 6-11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,12,13,15 and 16 is/are rejected.
- 7) ☒ Claim(s) 14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Claim Rejections – 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 3, 12–16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 is vague and indefinite because it is not sure if claim 1 is claiming a system claim or a method claim. Claim 1 is appeared to be a hybrid claim, however, claim 1 does not recite any steps or means involved in the system or method/process, it is unclear what the system or method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use or system without any active, positive steps or means delimiting how this use or system is actually practiced.

***Claim Rejections – 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1, 4, 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Frank (6,731,622).

***Claim Rejections – 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 3, 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frank (6,731,622) in view of Rakib (US2003/0156603)

**Regarding claims 1 and 3,**

Frank (6,731,622) discloses a cellular wireless communication network system comprising a plurality of base stations and a plurality of mobile stations, wherein said base station are connected together with wireless communication (fig.1).

Frank further discloses wherein communication between one of said base stations and said mobile stations is achieved by a packet CDMA communication method (col.5, lines 24–29; col.6, lines 23–30).

Frank does not explicitly disclose a frame composed of a preamble block having a barker code and an information block having an orthogonal M series codes (claim 1); said wireless communication among a plurality of base stations is achieved by a Spread Spectrum CDMA (SS-CDMA)(claim 3).

However, in the same field of endeavor, Rakib (US2003/0156603) discloses a carrier signal (frame) using preamble data and Barker codes and payload (information block) using orthogonal, pseudorandom spreading codes (see 0510) (corresponding to claim 1) and using a S-CDMA receiver/transmitter (see 0510) (corresponding to claim 3). Therefore, it would have been obvious to an artisan to apply Rakib's teaching to Frank's system with the motivation being to avoid tracking loops in the central unit.

**Regarding claim 15,**

Frank further discloses wherein said base station takes the correlation of the uplink at the receiving portion and then detects the receiving timing, calculate a timing that said receiving timing becomes the most suitable, inserts the most suitable timing as the timing controlling information into

the frame for downlink and send the data (col.3, line 49–col.4, line 13).

6. Claims 12–13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frank (6,731,622) in view of Rakib (US2003/0156603) as applied to claim 1, and further in view of Kuroyanagi (6,421,367).

**Regarding claims 12 and 13,**

The modified Frank discloses all the claimed limitations, except communication utilizing Approximate Synchronized CDMA (AS-CDMA) method such that a packet of the AS-CDMA method includes a frame having synchronizing block and an information block and the information block includes the AS-CDMA code (claim 12); by information about a phase included in the preamble portion, such that information about the cellular wireless communication network system is determined from the information about the phase (claim 13).

However, Kuroyanagi (6,421,367) discloses a communication system using approximately synchronized CDMA system (col.1, lines 13–26)(corresponding to claim 12); wherein the signals in the approximately

synchronized CDMA system using multi-phase sequences (col.1, lines 20–26)(corresponding to claim 13). Therefore, it would have been obvious to an artisan to apply Kuroyanagi's teaching to the modified Frank's system with the motivation being to avoid co-channel interference.

7. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Frank (6,731,622) in view of Rakib (US2003/0156603) and Kuroyanagi (6,421,367) as applied to claim 15, and further in view of Ogawa (6,728,305).

**Regarding claim 16,**

Frank does not explicitly disclose (1) wherein said mobile station establishes the synchronization of the spread code by detecting the spread code in the preamble portion at the receiving portion of the downlink, after making the reverse spreading of the spread code, demodulates the data through the integral networks, (2) then extracts the transmission timing control information which is inserted in the received frame, controls the chip timing of the reverse spread code based on the transmission timing controlling information and transmit the data as the uplink.



However, in the same field of endeavor, Ogawa (6,728,305) discloses a despreading unit of the CDMA system in figure 4 for reversely spread the received signal in the reverse spreader 16 using corresponding one of the plurality of spread codes, see col.7, lines 25–36 (corresponding to (1)). Ogawa also discloses time delay in spreading, see col.7, line 37–col.8, line 4–although there was no indication of extracting the transmission timing control in the reverse spreading shown but the despreading unit reversely spread the received signal corresponding to the time and code embedded in the received signal, thus the time delay was spread at transmitting and now it would be reversely spread at receiving–emphasis added (corresponding to (2)). Therefore, it would have been obvious to an artisan to apply Ogawa's teaching to Frank's system with the motivation being to avoid interchannel interference and varying propagation delay in a mobile communication.

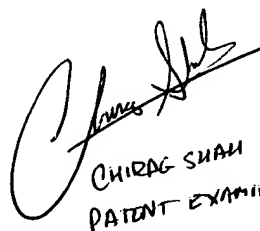
8. Claim 14 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Applicant's arguments, see pages 8-10, filed 3-22-6, with respect to claim 1 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of claims 1, 3, 12-13, 15-16.


10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuongchau Ba Nguyen whose telephone number is 571-272-3148. The examiner can normally be reached on Monday-Friday from 10:00 a.m. to 2:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To can be reached on 571-272-7629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



CHIRAG SHAH  
PATENT EXAMINER, 2600



Phuongchau Ba Nguyen  
Examiner  
Art Unit 2616